



Missouri Department of Natural Resources

Annual Compliance Report of Missouri Public Drinking Water Systems for 1998

Public Drinking Water Program
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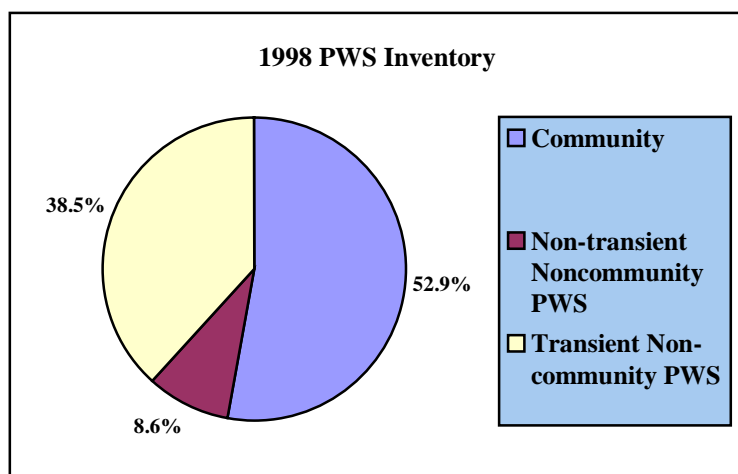
Introduction

The amended federal Safe Drinking Water Act (SDWA) requires state agencies which are responsible for regulating public water systems to prepare and submit to the Environmental Protection Agency (EPA) an annual report on public water system violations. The 1996 Annual Compliance Report was the first report required under the amended SDWA and this 1998 report is the third. Also as a requirement of the SDWA, EPA is to summarize and evaluate the states' reports in an annual national report, the next national report should be released around July 1, 1999.

EPA established the Public Water System Supervision (PWSS) Program under the authority of the 1974 Safe Drinking Water Act and the 1986 and 1996 amendments. The SDWA allows states and territories to seek EPA approval to administer their own PWSS Programs. The authority to run a PWSS Program is called primacy. To receive primacy, states must meet certain requirements laid out in the SDWA and the regulations, including the adoption of drinking water regulations that are at least as stringent as the Federal regulations and a demonstration that they can enforce the program requirements. The Missouri Department of Natural Resources' Public Drinking Water Program (PDWP) has had primacy since the late 1970's. The PDWP, with its primacy authority, administers the federal standards and requirements in Missouri through equivalent state regulations.

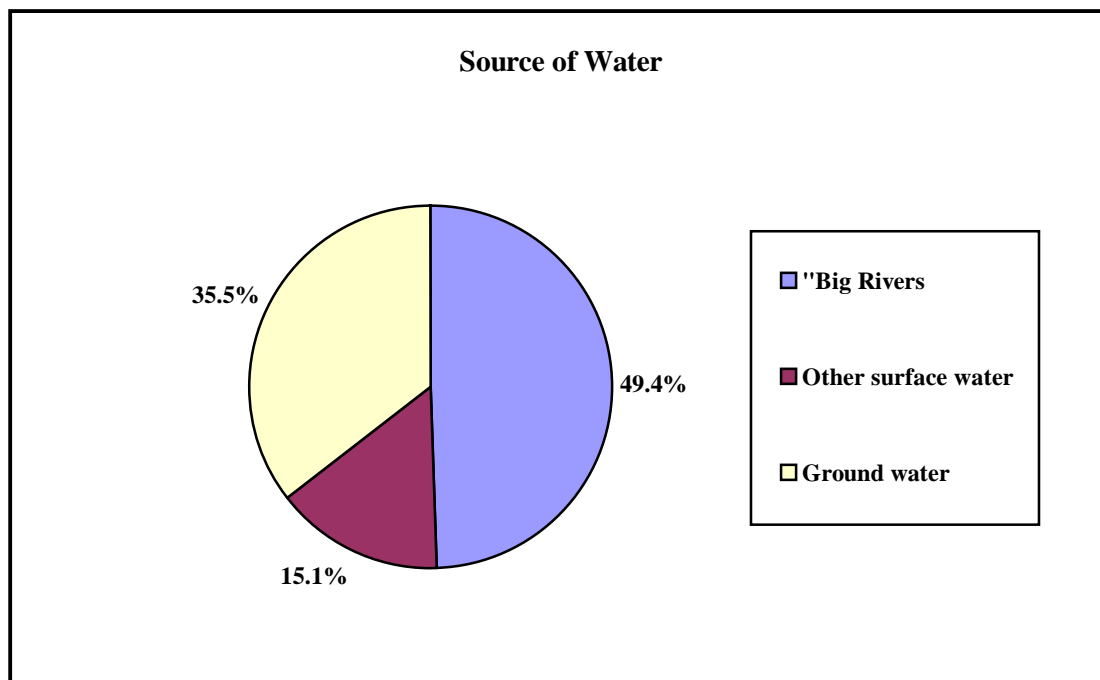
The Missouri Public Water System Universe

A Public Water System (PWS) is defined as a system that provides water through piping or other constructed conveyances for human consumption to at least 15 service connections or serves an average of at least 25 people for at least 60 days each year. Water testing at systems serving fewer people than this is facilitated by local and county sanitarians and the Missouri Department of Health, rather than DNR. There are three types of PWSs. PWSs can be community (such as towns, subdivisions, or mobile home parks), non-transient non-community (such as schools or factories) or transient non-community systems (such as rest stops or parks). The requirements for construction, operation, monitoring, etc., vary among systems based on their type, size, and source of water.



The time period covered by this annual Compliance report is calendar year 1998. In 1998, there were 2,714 active PWSs in Missouri. Of this total, 1,436 were community, 234 were non-transient non-community and 1,044 were transient non-community systems.

The community water systems in Missouri served approximately 4.7 million citizens in 1998. These citizens benefit from one of Missouri's most outstanding resources - its water. There is generally a good quantity of good quality water in Missouri. By far the largest source of water for Missourians was the Missouri and Mississippi River system. The abundant supply of water in these rivers and the proximity to the state's major population centers make the use of the big rivers as a source so popular. Ground water is the next most used source of drinking water for Missouri's community supplies. This is especially true in southern Missouri where good quality groundwater is easy to obtain and requires very little treatment to be used as a drinking water source.

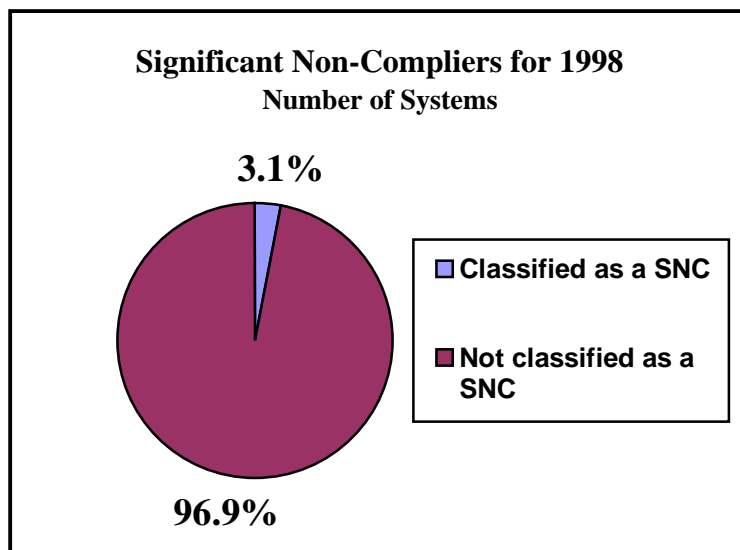


Analysis of Compliance by Public Water Systems in 1998

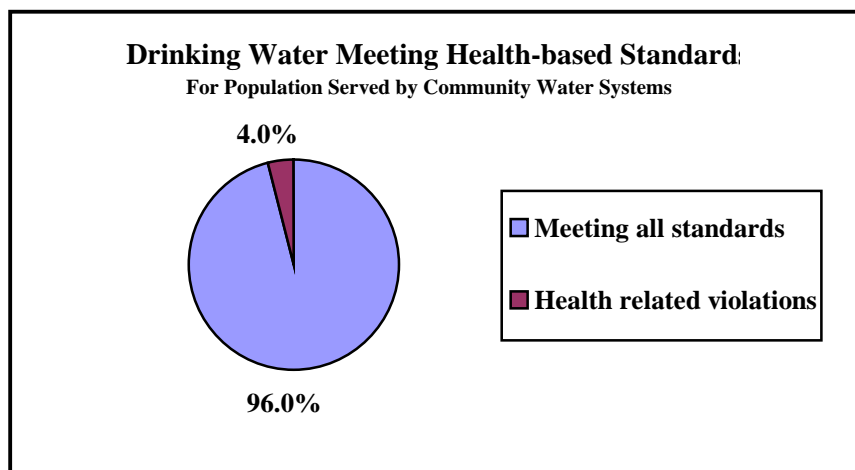
We expect a lot from our public water systems and require testing for as many as 90 different regulated chemicals and microbiological contaminants during the year. A system is to be applauded for performing all required testing and meeting all MCL standards. When MCL violations do occur, it can be the first step in correcting a problem: that of identifying it. Many public water systems perform testing beyond that required by the state.

The Summary of Violations tables are counts of individual violations. Because there are multiple regulations involved and some monitoring is on a monthly schedule, each Public Water System (PWS) has the potential to accumulate multiple violations during the year. For example, the monitoring requirements for the Total Coliform Rule alone create a potential for over 32,000 violations. This puts some perspective on the violation figures shown in the tables. Another factor is the number of systems that have violations. Many of the violations are from water systems with problems which result in multiple violations during the year while other systems may only have one or two violations. The department uses various methods to focus in on the water systems that need attention.

The Missouri Department of Natural Resources and the Environmental Protection Agency use a process called Significant Non-Compliers or SNCs to focus attention on the water systems with problems that are considered significant. These are the systems with serious violations potentially affecting public health or multiple monitoring violations.



During 1998 there were only 83 systems on the SNC list. That means that 2,631 of the 2,714 PWSs in Missouri were not significant violators.



The violations representing the most potential impact on public health (MCLs, lead action levels, and treatment techniques) were identified in only a small number of the public water systems.

The vast majority of MCL and monitoring violations were for failure to meet the requirements of the Total Coliform Rule. Total coliform bacteria serve as an indicator that disease-causing organisms may be present and all public water systems in the state must test for this type of bacteria every month they dispense water to the public. The number of major monitoring violations decreased from 1,202 in 1997 to 1,143 in 1998. A number of systems missed collecting samples for one or two months; relatively few systems missed sampling for three or more months.

The number of MCL violations of the Total Coliform Rule, however, increased significantly in 1998. MCL violations for total coliform bacteria increased from 373 in 1997 to 555 in 1998. MCL violations for fecal coliform or *E. coli* bacteria increased from 37 in 1997 to 81 in 1998. One explanation for this is that bacteria are more prolific in warmer weather and the mild winter

of 1997-98 allowed bacteria to persist. DNR's monitoring effort is paying off by finding these public water systems with major bacteriological problems. To put the problem in perspective, 68 out of the 2,714 public water systems in the state had a total of 81 acute violations for fecal coliform or *E. coli* in 1998. So while these acute violations can be serious, they are rare. Additional good news is that for most of these violations, there were no reports of illness. A possible reason for this is that microorganisms were not present in large enough numbers to cause infection in most people.

Some people, however, may be more vulnerable to water-borne illness than the general population. To educate the public on this issue, the U.S. Environmental Protection Agency will require all community water systems to provide their customers with their first Consumer Confidence Report by October 19, 1999 covering calendar year 1998. Each report must include the following warning: "Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA and CDC (Centers for Diseases Control) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791."

The phrase "know before you go" can apply to domestic as well as foreign travel, as compliance with drinking water regulations was significantly worse than average for transient non-community systems, so named because they do not typically serve the same people on a daily basis. This type of water system includes restaurants, resorts and campgrounds with their own wells. Transient non-community systems in 1998 accounted for 38 percent of all water systems in the state, but had 48 percent of the MCL violations for total coliform bacteria, 65 percent of the acute violations for fecal coliform or *E. coli*, and 58 percent of major monitoring violations.

Water districts, a type of community system, had as a group a record much better than average. In 1998, water districts accounted for 9 percent of all public water system in the state, but had only 4 percent of the MCL violations for total coliform bacteria, 2 percent of the acute violations for fecal coliform or *E. coli* and 2 percent of the major monitoring violations.

Compliance Activities - Preserving the Quality of the Drinking Water

The Missouri Department of Natural Resources (DNR) works closely with violators to return them to compliance in a timely manner. This includes phone contacts, on-site inspections, meetings with owners or operators and technical assistance as needed. For the more serious violations, a bilateral compliance agreement between the water system owner and DNR is the tool generally used to move the system back into compliance. Should a water system fail to meet the provisions of that agreement or continue to violate drinking water regulations, more formal enforcement actions, such as legal action through the courts, may become necessary. The following formal actions in 1998 represent action on more serious problem systems.

Bilateral Compliance Agreements signed	63
Cases referred to the Attorney General	10
Settlement Agreement/Judgements	3
Cases Pending at End of 1998	12

The DNR also provides training and technical assistance to try to prevent the occurrence of microbiological violations. Training is routinely provided to operators and owners of public water systems around the state, primarily concentrating on the basic principles of running a water system and avoiding microbiological contamination of the system. Technical assistance in the form of phone contacts and on site visits is also provided routinely or upon request to help water system operators avoid or correct problems. Most of these activities are carried out by staff in the six Division of Environmental Quality regional offices. The following highlights from the regional offices are typical of the scope of effort for public drinking water.

St. Louis Regional Office – 224 unsafe bacteria samples investigated
Jefferson City Regional Office - 68 drinking water complaints investigated
Southeast Regional Office – 215 inspections of water system facilities

For all violations, public water systems are required to notify the consumers they serve. The method of notification varies by the violation and system type. Systems must then report back to DNR how the public notice was performed. Some violations, such as the confirmed detection of fecal coliform bacteria or *E. coli*, warrant more immediate action due to the threat to public health. For such acute violations, DNR requires systems to immediately notify their customers to boil their water before consumption. Boil water orders remain in effect until the problem has been corrected, and the water is safe to consume.

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Organic Contaminants							
1,1,1-Trichloroethane	0.2					12	12
1,1,2-Trichloroethane	0.005					12	12
1,1-Dichloroethylene	0.007					12	12
1,2,4-Trichlorobenzene	0.07					12	12
1,2-Dibromo-3-chloropropane (DBCP)	0.0002						
1,2-Dichloroethane	0.005					12	12
1,2-Dichloropropane	0.005					12	12
2,3,7,8-TCDD (Dioxin)	3x10 ⁻⁸						
2,4,5-TP	0.05						
2,4-D	0.07						
Acrylamide							
Alachlor	0.002						
Atrazine	0.003	4	2				

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Benzene	0.005					12	12
Benzo[a]pyrene	0.0002						
Carbofuran	0.04						
Carbon tetrachloride	0.005					12	12
Chlordane	0.002						
cis-1,2-Dichloroethylene	0.07					12	12
Dalapon	0.2						
Di(2-ethylhexyl)adipate	0.4						
Di(2-ethylhexyl)phthalate	0.006						
Dichloromethane	0.005					12	12
Dinoseb	0.007						
Diquat	0.02						
Endothall	0.1						
Endrin	0.002						

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Epichlorohydrin							
Ethylbenzene	0.7					12	12
Ethylene dibromide	0.00005						
Glyphosate	0.7						
Heptachlor	0.0004						
Heptachlor epoxide	0.0002						
Hexachlorobenzene	0.001						
Hexachlorocyclopentadiene	0.05						
Lindane	0.0002						
Methoxychlor	0.04						
Monochlorobenzene	0.1					12	12
o-Dichlorobenzene	0.6					12	12
Oxamyl (Vydate)	0.2						
para-Dichlorobenzene	0.075					12	12

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Pentachlorophenol	0.001						
Picloram	0.5						
Simazine	0.004						
Styrene	0.1					12	12
Tetrachloroethylene	0.005					12	12
Toluene	1						
Total polychlorinated biphenyls	0.0005						
Toxaphene	0.003						
Trans-1,2-Dichloroethylene	0.1					12	12
Trichloroethylene	0.005					12	12
Vinyl chloride	0.002					12	12
Xylenes (total)	10					12	12

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Total trihalomethanes	0.10						

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Inorganic Contaminants							
Antimony	0.006					12	12
Arsenic	0.05					12	12
Asbestos	7 million fibers/λ ≤μm long						
Barium	2					12	12
Beryllium	0.004					12	12
Cadmium	0.005					12	12
Chromium	0.1					12	12
Cyanide (as free cyanide)	0.2					12	12
Fluoride	4.0	1	1			12	12
Mercury	0.002					12	12
Nitrate	10(as Nitrogen)						
Nitrite	1 (as Nitrogen)						

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Selenium	0.05					12	12
Thallium	0.002					12	12
Total nitrate and nitrite	10 (as Nitrogen)					92	92

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Radionuclide MCLs							
Gross alpha	15 pCi/λ	3	3			49	49
Radium-226 and radium-228	5 pCi/λ	3	3				
Gross beta	4 mrem/yr						
Subtotal		11	8			525	146

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Total Coliform Rule							
Acute MCL violation	Presence	82	68				
Non-acute MCL violation	Presence	551	377				
Major routine and follow up Monitoring						1,140	665
Sanitary survey ²							
Subtotal		633	377			1,140	665

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Surface Water Treatment							
Filtered systems							
Monitoring, routine/repeat							
Treatment techniques				7	6		
Unfiltered systems							
Monitoring, routine/repeat							
Failure to filter							
Subtotal				7	6		

Violations Table

State: Missouri

Reporting Interval:

Jan. 1, 1998-Dec. 31, 1998

	MCL (mg/λ) ¹	MCLs		Treatment Techniques		Significant Monitoring/Reporting	
		Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems With Violations	Number of Violations	Number of Systems with Violations
Lead and Copper Rule							
Initial lead and copper tap M/R						17	17
Follow-up or routine lead and copper tap M/R						21	21
Treatment installation							
Public education							
Subtotal						38	38

1. Values are in milligrams per liter (mg/λ), unless otherwise specified.
2. Number of major monitoring violations for sanitary survey under the Total Coliform Rule.

Definitions for Summary of Violations Table

The following definitions apply to the Summary of Violations table.

Filtered Systems: Water systems that have installed filtration treatment [10 CSR 60-4.055].

Inorganic Contaminants: Non-carbon-based compounds such as metals, nitrates, and asbestos. These contaminants are naturally-occurring in some water, but can get into water through farming, chemical manufacturing, and other human activities. DNR has established MCLs for 15 inorganic contaminants [10 CSR 60-4.030].

Lead and Copper Rule: This rule established national limits on lead and copper in drinking water [10CSR 60-15.010]. Lead and copper corrosion pose various health risks when ingested at any level, and can enter drinking water from household pipes and plumbing fixtures. States report violations of the Lead and Copper Rule are reported for the following six categories:

Initial lead and copper tap M/R: A violation where a system did not meet initial lead and copper testing requirements, or failed to report the results of those tests to the State.

Follow-up or routine lead and copper tap M/R: A violation where a system did not meet follow-up or routine lead and copper tap testing requirements, or failed to report the results.

Treatment installation: Violations for a failure to install optimal corrosion control treatment system or source water treatment system which would reduce lead and copper levels in water at the tap. [One number is to be reported for the sum of violations in both categories].

Lead service line replacement: A violation for a system's failure to replace lead service lines on the schedule required by the regulation.

Public education: A violation where a system did not provide required public education about reducing or avoiding lead intake from water.

Maximum Contaminant Level (MCL): The highest amount of a contaminant that DNR allows in drinking water. MCLs ensure that drinking water does not pose either a short-term or long-term health risk. MCLs are defined in milligrams per liter (parts per million) unless otherwise specified.

Monitoring: DNR specifies which water testing methods the water systems must use, and sets schedules for the frequency of testing. A water system that does not follow DNR's schedule or methodology is in violation [10 CSR 60-4.010].

States must report monitoring violations that are significant as determined by the EPA Administrator and in consultation with the States. For purposes of this report, significant monitoring violations are major violations and they occur when no samples are taken or no results are reported during a compliance period.

A major monitoring violation for the surface water treatment rule occurs when at least 90% of the required samples are not taken or results are not reported during the compliance period.

Organic Contaminants: Carbon-based compounds, such as industrial solvents and pesticides. These contaminants generally get into water through runoff from cropland or discharge from factories. DNR has set legal limits on 54 organic contaminants that are to be reported [10CSR 60-4.040 and 4.100].

Radionuclides: Radioactive particles, which can occur naturally in water or result from human activity. DNR has set legal limits on four types of radionuclides: radium-226, radium-228, gross alpha, and beta particle/photon radioactivity [10 CSR 60-4.060]. Violations for these contaminants are to be reported using the following three categories:

Gross alpha: A violation for alpha radiation above MCL of 15 picocuries/liter. Gross alpha includes radium-226 but excludes radon and uranium.

Combined radium-226 and radium-228: A violation for combined radiation from these two isotopes above MCL of 5 pCi/L.

Gross beta: A violation for beta particle and photon radioactivity from man-made radionuclides above 4 millirem/year.

Surface Water Treatment Rule: The Surface Water Treatment Rule establishes criteria under which water systems supplied by surface water sources, or ground water sources under the direct influence of surface water, must filter and disinfect their water [10 CSR 60-4.055]. Violations of the “Surface Water Treatment Rule” are reported for the following categories:

Monitoring, routine/repeat (for filtered systems): A violation for a system’s failure to carry out required tests, or to report the results of those tests.

Treatment techniques (for filtered systems): A violation for a system’s failure to properly treat its water.

Total Coliform Rule (TCR): The Total Coliform Rule establishes regulations for microbiological contaminants in drinking water. These contaminants can cause a short-term health problem. If no samples are collected during the one-month compliance period, a significant monitoring violation occurs. States are to report four categories of violations:

Acute MCL violation: A violation where the system found fecal coliform or E. Coli, potentially harmful bacteria, in its water, thereby violating the rule.

Non-acute MCL violation: A violation where the system found total coliform in samples of its water at a frequency or at a level that violates the rule. For systems collecting fewer than 40 samples per month, more than one positive sample for total coliform is a violation.

For systems collecting 40 or more samples per month, more than 5% of the samples positive for total coliform violation.

Major routine and follow-up monitoring: A violation where a system did not perform any monitoring. [One number is to be reported for the sum of the violations in these two categories.]

Sanitary Survey: A major monitoring violation if a system fails to collect 5 routine monthly samples if sanitary survey is not performed/

Treatment Techniques: A water disinfection process that EPA requires instead of a MCL for contaminants that laboratories cannot adequately measure. Failure to meet other operational and system requirements under the Surface Water Treatment and the Lead and Copper Rules have also included in this category of violation for purposes of this report.

Unfiltered Systems: Missouri has required filtration of all surface water sources for many years. There are no unfiltered surface systems in Missouri and therefore no violations in this category.

Violation: A failure to meet any state or federal drinking water regulation.

Variances and Exemptions

Variances and exemptions are compliance tools used to ensure public water systems in violation of MCL standards return to compliance in a framework that protects the public health while allowing public water systems needed flexibility in solving a complicated problem. A variance is typically used when feasible technology or other means does not exist for a system to meet a regulation. Missouri, however, has not yet needed to use the variance as a compliance tool. An exemption is used to allow public water systems adequate time to evaluate the best available technology and other strategies to meet an MCL. Over the past several years, DNR has used the exemption to solve the problem of atrazine MCL exceedences at a number of surface water systems. In order for DNR to issue an exemption, these water systems typically had to commit a rigorous schedule of both additional treatment at the water plant (involving significant costs) and watershed management, a coordinated effort of educating farmers who apply atrazine in the watershed of the drinking water source water.

DNR granted one exemption in 1998 to the city of Bucklin. This system initially exceeded the MCL for atrazine in 1997, but the violation technically continued into 1998. Since the health concern with atrazine is long-term, rather than acute, calculation for compliance with the MCL is based on the average of the four most recent quarterly samples. First and second quarter 1998 results for atrazine were 1 part per billion (ppb) for each quarter, well below the MCL of 3 ppb for atrazine. However, atrazine levels of 9 and 5 ppb in the third and fourth quarter 1997, kept the running annual average at 4 ppb, in exceedence of the MCL. Rather than issue additional notices of violation, DNR pursued the exemption route with Bucklin to ensure the system in the future would be reliably and consistently in compliance with the MCL through treatment at the water plant and implementation of pesticide best management practices in the watershed of the Bucklin's drinking water impoundment. The exemption issued to Bucklin in 1998 will run until August 17, 1999. No atrazine was detected in samples collected during the third and fourth quarters of 1998 and first quarter 1999, so this system has already returned to compliance.

For Further Information

Information regarding the contents of this report or related data on Missouri's public water systems can be obtained from the Missouri Department of Natural Resources, Public Drinking Water Program, P.O. Box 176, Jefferson City, MO 65102. Call (573) 751- 5331. You can also visit our website at <http://www.dnr.state.mo.us/deq/pdwp/homepdwp.htm>.

APPENDIX A

Listing of Maximum Contaminant Level (MCL) violators for 1998.

1. Coliform MCL Violations

Acute

The following systems were under boil water orders due to acute MCL violations for fecal coliform or E. coli bacteria for the months listed. These acute violations also violate the standard for total coliform bacteria.

County	SUPPLY NAME	ID#	Month(s)	Issue Date	Rescind Date
BARTON	MINDENMINES	MO5010530	May	06/05/98	06/12/98
BENTON	DOUBLE M MOBILE COACH RANCH	MO3048043	February	02/19/98	03/13/98
CAMDEN	BAYOU BILLS BAR & GRILL	MO3218205	July	09/23/98	09/23/98
CAMDEN	CHATEAU AVE'S	MO3210247	July	08/10/98	08/27/98
CAMDEN	COFFEE CUP CAFE	MO3210009	February March May	02/26/98 03/20/98 Inactive	03/05/98 03/26/98
CAMDEN	COUNTRY HOUSE BUFFET	MO3218225	July	08/10/98	08/10/98
CAMDEN	GLAIZE BRIDGE SHOPPING CENTER	MO3258200	March	04/14/98	04/24/98
CAMDEN	HARWOODS RESORT	MO3198207	August	08/18/98	08/21/98
CAMDEN	IMO'S PIZZA	MO3218232	June August September	08/21/98 10/19/98	08/27/98 still in effect
CAMDEN	J-J BAR B Q	MO3218246	August	08/28/98	09/03/98
CAMDEN	LAKEVIEW BEACH RESORT	MO3191521	July	07/20/99	Still in effect
CAMDEN	MICKEYLAND RESORT	MO3198088	May	06/15/98	06/18/98
CAMDEN	PARKWAY CENTER	MO3258082	September	10/13/98	10/19/98

**Coliform MCL Violations
Acute**

County	SUPPLY NAME	ID#	Month(s)	Issue Date	Rescind Date
CAMDEN	THE GOLDEN DOOR MOTEL	MO3190696	August	08/28/98	09/03/98
CAMDEN	WENDY'S	MO3218096	May June	06/01/98 06/25/98	06/03/98 06/30/98
CAPE GIRARDEAU	MID AMERICA TEEN CHALLENGE	MO4079503	June	06/26/98	07/09/98
CHRISTIAN	SPOKANE HIGHLANDS	MO5031093	September	09/15/98	09/24/98
COLE	E & M MHP	MO3048266	January	01/14/98	01/30/98
COOPER	PRAIRIE HOME	MO3010660	September		
CRAWFORD	BASS RIVER RESORT	MO3241649	June	06/10/98	06/29/98
CRAWFORD	FOX SPRINGS LODGE	MO6190792	July	08/05/98	08/28/98
CRAWFORD	LEASBURG	MO6010457	September	10/02/98	10/09/98
DOUGLAS	PLUMMER'S JUNCTION STORE AND CAFE	MO5211664	November	10/20/98	12/16/98
FRANKLIN	GENCORP AUTOMOTIVE	MO6181289	July	07/23/98	07/30/98
GREENE	CROSSROADS GENERAL STORE	MO5258164	June	06/24/98	06/26/98
GREENE	NORTHWEST BAPTIST CHURCH	MO5272307	January	01/22/98	01/29/98
GREENE	TIMBERCREST MOBILE HOME PARK	MO5048165	February	02/23/98	03/10/98
HICKORY	GOODY'S RESORT	MO5190914	October	10/15/98	10/30/98
HOWELL	VALLEY PARK MHP	MO4041188	April October November	04/13/98 11/19/98	04/27/98 12/16/98
JASPER	SARCOXIE MOTEL	MO5190924	July August	07/29/98	10/23/98
JEFFERSON	LAKEWOOD HILLS SUBD	MO6036049	December		

**Coliform MCL Violations
Acute**

County	SUPPLY NAME	ID#	Month(s)	Issue Date	Rescind Date
JEFFERSON	PEACE TABERNACLE	MO6272317	September	10/08/98	10/30/98
JEFFERSON	TEAMSTER HEALTH & MEDICAL CAMP	MO6240133	October	11/04/98	11/09/98
LACLEDE	CIRCLE J CAMPGROUND #1	MO5240034	July	07/29/98	08/13/98
LACLEDE	PONY EXPRESS MARKET	MO5258071	March	03/13/98	03/24/98
LAWRENCE	HICKORY HILLS TRAILER COURT	MO5048105	January	01/23/98	01/29/98
LAWRENCE	JOE'S JUNCTION	MO5292361	November	12/07/98	12/21/98
MADISON	USFS-MARBLE CREEK	MO4102232	May June July August	05/13/98	Inactive
MCDONALD	STEAK OUT	MO5211235	July	08/07/98	08/28/98
MILLER	CAMP BAGNELL	MO3241749	July	08/03/98	08/12/98
MILLER	CAMPER'S DELITE	MO3240047	May	06/09/98	06/22/98
MILLER	LAKESIDE VILLAGE	MO3010444	August	09/03/98	09/17/98
MONITEAU	GO GET IT #6	MO3290673	February	02/26/98	03/02/98
MORGAN	ASSEMBLY OF GOD CAMP	MO3240282	August	08/28/98	09/03/98
MORGAN	CAMP SABRA	MO3190044	August	08/19/98	08/27/98
MORGAN	FOREST HILLS SUBD	MO3036159	July	07/29/98	08/17/98
MORGAN	RAIL FENCE CAFE	MO3211428	July	08/05/98	08/11/98
NEWTON	DOWN STAIRS SPORTS LOUNGE	MO5212328	August	09/15/98	12/11/98
NEWTON	FOUR STATES SNACK BAR	MO5281260	September October	10/08/98	12/18/98

**Coliform MCL Violations
Acute**

County	SUPPLY NAME	ID#	Month(s)	Issue Date	Rescind Date
NEWTON	T & D CORNER	MO5291658	July	08/03/98	08/17/98
OREGON	KOSHKONONG	MO4010434	October	10/26/98	11/17/98
OSAGE	OSAGE CO PWSD #4	MO3024440	June July	06/15/98 08/03/98	06/30/98 08/19/98
PETTIS	STARDUST MOTOR INN	MO3190887	June	06/24/98	07/01/98
POLK	HILLSIDE ESTATES NURSING HOME	MO5069073	November	12/10/98	12/18/98
REYNOLDS	LENNY'S	MO4218522	June	06/29/98	07/08/98
ST CLAIR	CLEARVIEW DAY CARE & PRE SCHOOL CENTER	MO5170218	April	04/29/98	05/19/98
ST LOUIS	PARADISE VALLEY GOLF & COUNTRY CLUB	MO6200551	May	06/05/98	06/11/98
STONE	ANTLER'S RESORT & CAMPGROUND	MO5190933	October	10/15/98	10/19/98
STONE	COOL WATER COVE WATER WELL ASSOC	MO5031127	May	05/14/98	06/09/98
STONE	FLAT CREEK RESORT AND RESTAURANT	MO5191681	May November	05/13/98 11/25/98	05/21/98 04/12/99
STONE	MOUNTAIN COUNTRY MOTOR INN	MO5198039	August	08/24/98	09/04/98
STONE	REDWOOD LODGE	MO5190954	January February	01/22/98	04/06/98
STONE	REEDS SPRING	MO5010679	January	01/16/98	01/22/98
SULLIVAN	NEWTOWN	MO2010574	August	08/31/98	09/04/98
TANEY	BRADLEYVILL E R-I SCHOOL	MO5171231	September	09/11/98	09/25/98

**Coliform MCL Violations
Acute**

County	SUPPLY NAME	ID#	Month(s)	Issue Date	Rescind Date
TANEY	TANEY CO UTILITIES CORP #2	MO5036223	May	05/28/98	06/10/98
WARREN	WARRENTON	MO6010834	November	12/02/98	12/04/98
WASHINGTON	STARLITE INC	MO4218505	June	06/24/98	07/06/98
WAYNE	CAMP LEWALLEN BSA	MO4240283	June	06/18/98	06/20/98
WEBSTER	HANNAH'S GENERAL STORE	MO5290233	August	08/12/98	08/20/98

Listing of Maximum Contaminant Level (MCL) violators for 1998.

Non-acute

The following systems had MCL violations for total coliform bacteria in the months indicated. Confirmation samples tested absent for fecal coliform or E coli bacteria.

County	SUPPLY NAME	ID#	Month(s)
ADAIR	ADAIR CO PWSD #1	MO2024000	September
ANDREW	ROSENDALE	MO1010757	May
BARRY	EMERALD BEACH VILLAGE OF	MO5010999	July
BARRY	GREEN SHORES SUBD	MO5036102	April
BARRY	HAPPY DAYS RESORT	MO5191346	July
BARRY	KINGS HARBOR RESORT	MO5211301	April May
BARRY	KNOB HILL ACRES	MO5036182	December
BARRY	LAKEWOOD MANOR SUBD	MO5036020	September October
BARRY	OAKS HOMEOWNERS ASSOC	MO5036300	November
BARRY	PURDY	MO5010667	July August
BARRY	ROARING RIVER RESORT	MO5190901	August September November
BARRY	ROARING RIVER STATE PARK	MO5120166	August
BARRY	SHORELINE CAMPGROUND & RESORT	MO5241299	June July
BARRY	VIOLA R V & MOBILE HOME PARK	MO5258287	April
BARTON	BARTON CO CONS PWSD #1	MO5024023	August
BATES	AMORET	MO1010014	May June
BATES	ROCKVILLE	MO1010698	January
BENTON	CAMP OAKLEDGE	MO3242005	August September
BENTON	COLE CAMP	MO3010180	February
BENTON	COLE TURKEY ACRES	MO3036260	July

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
BENTON	DOUBLE M MOBILE COACH RANCH	MO3048043	August
BENTON	HARRY S TRUMAN STATE	MO3120156	October
BENTON	LAKE HILLS MOTEL & RESTAURANT	MO3210904	September
BENTON	LINCOLN	MO3010469	November
BENTON	THE DAM REST & LOUNGE	MO3280886	July
BENTON	WARSAW R-IX SOUTH ELEM	MO3171120	December
BOLLINGER	WOODLAND R-IV SCHOOLS	MO4171122	April
BUCHANAN	DEKALB	MO1011181	July
BUTLER	OAK GROVE MOBILE ESTATES	MO4048235	May
CAMDEN	BACKWATER JACK'S BAR & GRILL	MO3212294	July
CAMDEN	BAYOU BILLS BAR & GRILL	MO3218205	October
CAMDEN	BRIDGE-POINTE CONDO	MO3238007	October
CAMDEN	BURTON DUENKE TRUST	MO3258107	August
CAMDEN	CAMP HERITAGE	MO3248239	June
CAMDEN	CEDAR ACRES RESORT	MO3190689	June
CAMDEN	CEDAR GLEN CONDOMINIUMS, OWC	MO3071205	June
CAMDEN	CHATEAU AVE'S	MO3210247	August September
CAMDEN	CHINESE LANTERN REST	MO3211721	August
CAMDEN	COZY CONEY CAFE	MO3211043	September

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
CAMDEN	DOGWOOD HILLS RESORT INN	MO3198238	November
CAMDEN	GOLDEN HORSESHOE RESORT	MO3190697	July
CAMDEN	HARWOODS RESORT	MO3198207	September
CAMDEN	HOHN SCOUT CAMP	MO3248224	September
CAMDEN	IMO'S PIZZA	MO3218232	February March April May July
CAMDEN	J-J BAR B Q	MO3218246	September
CAMDEN	JOURNEY'S END MHP - OWC	MO3041273	February
CAMDEN	KAYS RESTAURANT	MO3211099	May
CAMDEN	KIRKWOOD LODGE	MO3190755	June September
CAMDEN	KULA BAY	MO3198175	June
CAMDEN	LINN CREEK	MO3010471	January August September October November December
CAMDEN	LONE OAK POINT RESORT	MO3190708	June
CAMDEN	MAKALU ESTATES, OWC	MO3031208	September November
CAMDEN	MARINA BAY	MO3190714	December
CAMDEN	MAYWOOD CONDOMINIUMS	MO3238223	July August
CAMDEN	NIANGUA TRAILER PARK	MO3248208	July
CAMDEN	OSAGE HERITAGE CONDO	MO3238092	January

**Coliform MCL Violations
Non-Acute**

County	SUPPLY NAME	ID#	Month(s)
CAMDEN	OZARK BAR-BE-QUE	MO3218204	October
CAMDEN	OZARK OPRY	MO3258231	July
CAMDEN	PARKWAY CENTER	MO3258082	July
CAMDEN	RAPID ROBERT'S #113	MO3258185	September
CAMDEN	ROCKWOOD CAPRI RESORT MOTEL	MO3190688	August
CAMDEN	SPORTSMAN'S RESORT	MO3190753	June July
CAMDEN	ST MORITZ ESTATES CONDO	MO3238024	July
CAMDEN	STANDING ROCK CAMPGROUND	MO3248201	August September
CAMDEN	SUNRISE CANTINA	MO3210870	May
CAMDEN	THE LEDGES CONDOMINIUMS - OWC	MO3190843	October
CAMDEN	WAL-MART	MO3281405	March October
CAMDEN	WENDY'S OLD FASHION HAMBURGERS	MO3218096	June July
CAMDEN	WILLIAMSBURG INN	MO3191647	May
CAMDEN	WRENWOOD & ROBINWOOD CONDO	MO3191552	October
CAMDEN	ZIP STOP #1	MO3292376	December
CAMDEN	ZIP STOP INC #2	MO3258189	March November December
CAPE GIRARDEAU	CAPE GIRARDEAU	MO4010136	September
CAPE GIRARDEAU	EAST FRUITLAND WATER WELL ASSOC	MO4031218	May July August
CAPE GIRARDEAU	TRAIL OF TEARS ST PARK- VISITOR	MO4120180	August

**Coliform MCL Violations
Non-Acute**

County	SUPPLY NAME	ID#	Month(s)
CARTER	CARTER CO PWSD #2	MO4024109	November
CARTER	GRANDIN	MO4010322	July
CARTER	OUR PLACE	MO4258503	June July
CASS	CASS CO PWSD #2	MO1024114	October
CEDAR	CEDAR CO PWSD #1	MO5024120	September
CEDAR	EL DORADO SPRINGS	MO5010241	September November
CEDAR	JERICO SPRINGS	MO5010411	May
CEDAR	STOCKTON HILLS WATER CO	MO5036164	January February
CEDAR	STOCKTON-NORTH HAWKER POINT	MO5110190	September
CEDAR	TRAIL DRIVE INN/SHADY OAKS SUBD	MO5218140	January
CEDAR	UMBER VIEW HEIGHTS	MO5010967	September
CHRISTIAN	CHRISTIAN CO PWSD #1	MO5024133	November
CHRISTIAN	CLEVER	MO5010175	October
CHRISTIAN	PIPPENVILLE & OAK PARK OWNERS ASSOC	MO5036305	October
CHRISTIAN	RIVERSIDE INN	MO5218151	November
CHRISTIAN	SPOKANE HANDY MART	MO5291585	November
CHRISTIAN	SPOKANE HIGHLANDS	MO5031093	June July
CHRISTIAN	SUNSET HEIGHTS SUBD BLOCK I	MO5036063	July
CHRISTIAN	SUNSET HEIGHTS SUBD WELL-2 BLOCK 2	MO5036092	May
COLE	LAKE CARMEL	MO3031183	July
COOPER	COOPER CO PWSD #2	MO3024170	August

**Coliform MCL Violations
Non-Acute**

County	SUPPLY NAME	ID#	Month(s)
COOPER	PRAIRIE HOME	MO3010660	August October December
CRAWFORD	INDIAN SPRINGS	MO6192136	June
CRAWFORD	STEELVILLE	MO6010759	June
CRAWFORD	WOODLAND HEIGHTS SUBD	MO6036037	July August September
DADE	DADEVILLE	MO5010202	July
DALLAS	BUFFALO	MO5010114	June
DALLAS	FORT NIANGUA RIVER RESORT	MO5210063	October
DALLAS	JO'S	MO5291366	December
DALLAS	MR ED'S DRIVE IN	MO5218053	May June
DALLAS	URBANA	MO5010807	January
DE KALB	MAYSVILLE	MO1010510	August
DENT	BUNKER	MO4010883	August
DOUGLAS	AVA	MO5010040	August September
DOUGLAS	PLAINVIEW ELEM SCHOOL	MO5171805	August September
DOUGLAS	PLUMMER'S JUNCTION STORE AND CAFE	MO5211664	February August October
DOUGLAS	TWIN BRIDGES CANOE & CAMPGROUND	MO5241141	July
DUNKLIN	ARBYRD	MO4010022	July
FRANKLIN	CAMP MO- VAL/CAMP TAMBO	MO6241626	June
FRANKLIN	CEDAR VALE MHP	MO6048272	September
FRANKLIN	CHARMWOOD SUBDIVISION	MO6030106	December
FRANKLIN	FRANKLIN CO R-II ELEM SCHOOL	MO6171154	September
FRANKLIN	JUERGEN'S MHP	MO6048201	September October
FRANKLIN	MERAMEC CAVERNS	MO6201448	September October

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
FRANKLIN	OAK GROVE VILLAGE	MO6010590	September
FRANKLIN	SHAW ARBORETUM	MO6180186	June
GASCONADE	PEACEFUL VALLEY SERVICE CO	MO6036015	November
GREENE	COUNTRY SQUIRE VILLAGE	MO5048107	May
GREENE	CROSS ROADS ACRES	MO5036187	August September
GREENE	GREENE CO PWSD #5	MO5024230	June
GREENE	GREENE HILLS WATER ASSOC	MO5031115	July December
GREENE	SPRINGFIELD KOA	MO5240126	August September November
GREENE	STRAFFORD SOFTBALL COMPLEX	MO5218058	August
GREENE	VILLAGE WEST MHP	MO5048166	May September October
GREENE	WALNUT GROVE	MO5010829	December
GREENE	WILLARD	MO5010860	December
HENRY	SKY VILLAGE	MO1031166	June July August
HENRY	WINDSOR	MO1010865	July
HICKORY	FUGATE MOBILE HOME PARK	MO5238302	November
HICKORY	REMINGTON RANGE	MO5251418	July
HICKORY	RIVIERA SOUTH WATER CORP	MO5036314	April
IRON	DOE RUN COMPANY- VIBURNUM #35	MO4180665	April May

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
JACKSON	JACKSON CO PWSD #2	MO1024276	November
JASPER	ALBA	MO5010004	October
JASPER	BRIARBROOK SUBD	MO5036006	November
JASPER	CARL JUNCTION	MO5010138	October
JASPER	COUNTRY CLUB MHP	MO5048210	August October
JASPER	DUENWEG	MO5010227	December
JASPER	LEGGETT & PLATT	MO5180608	August
JASPER	NECK CITY	MO5010558	June
JASPER	PURCELL	MO5010665	June
JASPER	QUAKERMILL PARK AND GROCERY	MO5258132	August
JASPER	SARCOXIE MOTEL	MO5190924	September
JASPER	SUNSET MHP	MO5048021	August
JASPER	T'S CORNER	MO5258129	October
JASPER	WEBB CITY	MO5010844	May
JEFFERSON	BRIARWOOD LAKE DEVELOPMENT	MO6031110	October
JEFFERSON	CAMP CEDARLEDGE	MO6240040	August September
JEFFERSON	ELDERLY HOUSING PARTNERSHIP	MO6079508	July
JEFFERSON	HERCULANEUM	MO6010359	December
JEFFERSON	LAKE CATTAILS SUBD	MO6036161	June September
JEFFERSON	LITTLE BRENNAN U-GAS	MO6292359	November
JEFFERSON	PEACE TABERNACLE	MO6272317	June July August
JEFFERSON	PINE FORD VILLAGE MHP	MO6048354	December
JEFFERSON	SUNNYHILL CENTER	MO6171881	July
JEFFERSON	SUNRISE LAKES SUBD	MO6036080	August

**Coliform MCL Violations
Non-Acute**

County	SUPPLY NAME	ID#	Month(s)
JEFFERSON	WARE LAKE SUBD	MO6036148	September December
JOHNSON	BARLOW'S TRAILER COURT	MO1041099	November
LACLEDE	BOYD'S EZ MART	MO5292318	October
LACLEDE	LACLEDE CO PWSD #1	MO5024317	November
LAWRENCE	EXPRESS LANE #9	MO5292360	October
LAWRENCE	MILLER	MO5010525	October
LAWRENCE	ROUTE 66 RESTAURANT	MO5212358	December
LAWRENCE	SUMMIT BAPTIST CHURCH	MO5270393	December
LAWRENCE	VAUGHN TRAILER PARK	MO5048020	May
LINCOLN	CAMP TUCKAHO	MO6240045	May
LINCOLN	CEDAR RIDGE ESTATES	MO6041076	September October
MACON	ETHEL	MO2010256	October
MADISON	USFS-SILVER MINES CAMP	MO4100013	August
MCDONALD	LONGVIEW GROCERY & SUPPLY	MO5211762	April
MERCER	MERCER	MO2010515	May
MILLER	BLUE RIDGE MHP	MO3048156	December
MILLER	BROOKVIEW APARTMENTS	MO3079510	December
MILLER	CAMP BAGNELL	MO3241749	August
MILLER	EAGLE MHP	MO3048243	February
MILLER	LAKESIDE VILLAGE	MO3010444	November
MILLER	MARINA INN	MO3190808	June
MILLER	MILLER CO R-III SCHOOLS	MO3171263	January
MILLER	MILLER COUNTY COURTHOUSE	MO3160103	June
MILLER	OSAGE NATIONAL GOLF CLUB	MO3238274	June

**Coliform MCL Violations
Non-Acute**

County	SUPPLY NAME	ID#	Month(s)
MILLER	OZARK RESORT & CONF CENTER	MO3190805	April May June July
MILLER	REBECCA'S	MO3212296	July August
MILLER	REGATTA LANES	MO3202344	October November
MILLER	STANTON MFG CO INC	MO3180621	June August
MILLER	THE HUT	MO3210828	June
MONITEAU	LATHAM R-V SCHOOL	MO3171199	October
MONTGOMERY	LAZY DAY CAMPGROUND	MO6241534	October
MONTGOMERY	LOUTRE SHORE COUNTRY CLUB	MO3281053	November
MONTGOMERY	MIDDLETOWN	MO6010521	August
MONTGOMERY	STEAMBOAT JUNCTION	MO3242073	June
MORGAN	ASSEMBLY OF GOD CAMP	MO3240282	September October
MORGAN	BLUE ANCHOR MARINA	MO3230855	October
MORGAN	CAMP SABRA	MO3190044	June
MORGAN	COCHURMIN HOMES	MO3036231	May
MORGAN	FOREST HILLS SUBD	MO3036159	June October November
MORGAN	GAMBINO'S	MO3211305	May June October
MORGAN	LONG VALLEY RESORT	MO3241802	September
MORGAN	MORGAN CO R-II SOUTH ELEM	MO3171200	November December
MORGAN	RAIL FENCE CAFE	MO3211428	June
MORGAN	ROCK HARBOR RESORT	MO3190842	August

**Coliform MCL Violations
Non-Acute**

County	SUPPLY NAME	ID#	Month(s)
MORGAN	STILLWATER SUBDIVISION	MO3031259	October
MORGAN	VERSAILLES	MO3010819	September
MORGAN	ZWANZIG MHP	MO3041171	November
NEW MADRID	NEW MADRID CO PWSD #5	MO4024419	September
NEWTON	BRONC BUSTERS, INC	MO5211719	June
NEWTON	DOWN STAIRS SPORTS LOUNGE	MO5212328	October
NEWTON	NEWTON CO PWSD #1	MO5024423	February November
NEWTON	STELLA	MO5010760	September
NEWTON	SUN VALLEY MHP	MO5048223	July
NODAWAY	CLEARMONT	MO1010173	July
NODAWAY	GRAHAM	MO1010319	November
OREGON	KOSHKONONG	MO4010434	November December
OREGON	KOSHKONONG R- III SCHOOL	MO4171267	November
OSAGE	OSAGE CO PWSD #2-NORTH	MO3024438	July
OSAGE	OSAGE CO PWSD #4	MO3024440	July
OZARK	DAWT MILL AND CAMPGROUND	MO5240536	August
OZARK	PONTIAC BOAT DOCK, INC	MO5111823	July
OZARK	ROYS STORE	MO5292331	October
OZARK	SPRING CREEK RESORT	MO5190871	September
OZARK	TURKEY CREEK RANCH	MO5192286	August September November
PETTIS	ALAMO RESTAURANT LOUNGE/ ONE STOP	MO3218261	August September October December
PETTIS	CRESTVIEW MHP	MO3048254	July August

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
PETTIS	HIDDEN HILLS ESTATES	MO3036234	August September
PETTIS	SUNSET MOTEL	MO3190846	November
PHELPS	DOOLITTLE I-44 REST AREA	MO3130528	November
PHELPS	NORTHWYE MHP	MO3048118	August December
PHELPS	WHISPERING PINES SUBD	MO3036151	September October November December
PLATTE	PLATTE CO PWSD #4	MO1024478	June
PLATTE	PLATTE CO PWSD #9	MO1024483	August
POLK	COUNTRY HOUSE RESTAURANT	MO5210534	September
POLK	PLEASANT HOPE	MO5010650	September
POLK	SILO RIDGE COUNTRY CLUB L.L.C.	MO5031210	December
POLK	VALLEY VIEW ACRES	MO5041146	September October
PULASKI	OZARK SPRINGS RESORT, INC.	MO3211134	September
PULASKI	RICHLAND	MO3010684	May
REYNOLDS	WILDERNESS LODGE LIMITED - RIVER'S EDGE	MO4190878	November
RIPLEY	USFS-FLOAT CAMP CAMPGROUND	MO4102223	August September
RIPLEY	USFS-FLOATCAMP PICNIC GROUND	MO4100026	August September
SCOTT	ORAN	MO4010604	September
SCOTT	TEPPCO	MO4181100	January
SHANNON	EMINENCE	MO4010253	February
SHANNON	JASON PLACE CAMPGROUND	MO4248525	October
ST CHARLES	CHEROKEE LAKES CAMP	MO6240106	May August

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
ST CHARLES	ST JUDES SUBD	MO6036002	October November December
ST CHARLES	ST MARYS INSTITUTE	MO6069050	October November
ST CLAIR	CLEARVIEW DAY CARE & PRE	MO5170218	May
ST CLAIR	OLD PLANTATION MOTEL & BAR B Q	MO5212121	September
ST CLAIR	OSCEOLA CHEESE COMPANY	MO5232120	August September
ST FRANCOIS	C.B. JOE'S BBQ	MO4211557	November
ST FRANCOIS	ST FRANCOIS CO PWSD #2	MO4024539	January
ST LOUIS	AL-PAC HOMELESS SHELTER	MO6061132	October
ST LOUIS	MARIANIST RETREAT CENTER	MO6281482	May July August
ST LOUIS	RAMADA INN AT SIX FLAGS	MO6190564	August November
ST LOUIS	THE PLAYERS CLUB AT ST LOUIS	MO6200549	July August
ST LOUIS	WHISPERING OAKS HEALTH CARE	MO6069015	August October
ST LOUIS	WILDHORSE AMOCO	MO6291618	October
STE GENEVIEVE	WINDS OF MEADOWVIEW	MO4211581	August November
STODDARD	PUXICO	MO4010668	March
STONE	ALPINE LODGE RESORT	MO5190970	August
STONE	AUNT'S CREEK DEV 1ST ADDITION	MO5041140	September
STONE	BLACK OAK MOUNTAIN RESORT	MO5036267	August November

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
STONE	BLUE WATER VILLAGE/ BLAKEWOOD SUBD	MO5031128	October
STONE	BRANSON WEST CAMPGROUND	MO5248159	September
STONE	BRIAR CLIFF SUBDIVISION	MO5031104	July November
STONE	CAPS RIDGE RESORT	MO5191532	October
STONE	COOL WATER COVE WATER WELL ASSOC	MO5031127	January February March
STONE	CRANE	MO5010192	August
STONE	DOGWOOD CANYON	MO5211553	October
STONE	FLAT CREEK RESORT AND RESTAURANT	MO5191681	August
STONE	GALENA	MO5010298	October
STONE	HOOT OWL POINT 3RD ADDITION	MO5041144	December
STONE	HOOT OWL POINT SUBD	MO5036076	September
STONE	HURLEY	MO5010423	June December
STONE	HWY 13-00 PROPERTY OWNER'S ASSOC	MO5258122	June
STONE	LAKESWOOD MHP	MO5041130	August September
STONE	LUNKER LANDING RESORT	MO5190989	August
STONE	LYNN/PIZZA HUT/ WHITE OAK	MO5191964	September
STONE	MC CORD BEND UTILITY CO	MO5036205	June
STONE	MOUNTAIN COUNTRY MOTOR INN	MO5198039	July

**Coliform MCL Violations
Non-Acute**

County	SUPPLY NAME	ID#	Month(s)
STONE	MOUNTAIN ESTATES	MO5036125	May
STONE	OAK SHADOWS WATER ASSOC	MO5036250	July
STONE	PIZZA CHEF SOUTH	MO5258136	November
STONE	RIDGE VIEW MOTEL	MO5190967	November
STONE	SCHOONER CREEK RESORT	MO5190956	August September
STONE	STARLIGHT VILLAGE	MO5030473	May June
STONE	STILL WATERS RESORT	MO5190969	August
STONE	TABLE ROCK RETIREMENT VILLAGE	MO5069084	August
STONE	TABLE ROCK SPORTSMEN'S CLUB	MO5238059	August
STONE	WAGNER'S ONE STOP	MO5290224	June
STONE	WHITE EAGLE WOODS MHP	MO5190587	May
STONE	WOOD RIDGE ESTATES	MO5036071	June
TANEY	160 CAFE	MO5211163	April October November
TANEY	BIG CEDAR LODGE RESORT	MO5191011	May
TANEY	DEER RUN APTS	MO5070683	June September
TANEY	FIVE SEASONS MHP	MO5041214	December
TANEY	HITCH-N-POST GENERAL STORE	MO5211978	June
TANEY	LAKE SHORE RESORT	MO5191757	October
TANEY	OZARK PARK ESTATES	MO5048271	July August December

Coliform MCL Violations
Non-Acute

County	SUPPLY NAME	ID#	Month(s)
TANEY	RIVER LAKE RESORT	MO5191017	September
TANEY	SPRING CREEK 2ND ADD	MO5030391	April
TANEY	TANEY CO UTILITIES CORP #2	MO5036223	June
TANEY	TANEY COUNTY MEMORIAL POST #5168	MO5218299	January July
TANEY	TANEYCOMO RESORT	MO5191032	January
TEXAS	LICKING	MO4010467	August September
WARREN	CHILD EVANGELISM FELLOWSHIP	MO6172277	June July November
WARREN	FLYING J TRAVEL PLAZA	MO6182070	November
WARREN	GLENBROOK ESTATES	MO6036096	July
WARREN	OAKVIEW ESTATES SUBD.	MO6036303	June August December
WASHINGTON	BATES CREEK BAPTIST CAMP	MO4228500	June July
WASHINGTON	POTOSI	MO6010659	May
WAYNE	CAMP CHEROKEE RIDGE	MO4241707	June
WAYNE	CLEARWATER-RIVER RD LEFT BK-10	MO4112030	October
WAYNE	SAM A BAKER STATE PARK	MO4120168	April
WEBSTER	HANNAH'S GENERAL STORE	MO5290233	June July
WEBSTER	MIDWEST PRODUCTS, INC.	MO5181657	April October November
WEBSTER	SEYMOUR	MO5010734	September
WRIGHT	CLUB 60	MO5218312	September
WRIGHT	MO PARK CAMPGROUND	MO5048174	December

II. Chemical MCL Violations

County	Supply Name	ID#	Chemical
DAVIES	JAMESPORT	MO1010406	Atrazine
LINN	BUCKLIN	MO2010112	Atrazine

III. Radionuclide MCL Violations

County	Supply Name	ID#	Radionuclide
LINCOLN	LINDEMANN MHP	MO6048290	Combined Radium 226+228
LINCOLN	TARA VALLEY WATER ASSOC	MO6031193	Combined Radium 226+228 Gross Alpha
LINCOLN	TIMBER RIDGE ESTATES	MO6031217	Gross Alpha
ST CHARLES	COUNTRY ESTATES	MO6030484	Gross Alpha
STONE	KIMBERLING SHORES CONDO ASSOC	MO5070476	Combined Radium 226+228

IV. Treatment

The following systems violated the Surface Water Treatment Technique for Turbidity in the months indicated.

County	SUPPLY NAME	ID#	Month(s)
BATES	BUTLER	MO1010118	September
CASS	CREIGHTON	MO1010193	July
CLINTON	PLATTSBURG	MO1010648	December
MACON	MACON	MO2010487	January April
PIKE	LOUISIANA	MO2010479	March
SULLIVAN	GREEN CITY	MO2010329	April

Appendix B

Monitoring Violations Chronic

The following systems had 3 or more major monitoring violations of the Total Coliform Rule in 1998 and have been listed on previously issued news releases for chronic monitoring violations.

COUNTY	SUPPLY NAME	ID#	Month
Barry	Junction Quick Stop	MO5258156	January February March June October November
Barry	Raymond's Mexican Food	MO5211229	February March April May July August September October November December
Butler	Town & Country Apartments	MO4031156	March May June July August
Callaway	Tower MHP	MO3048261	May July August
Camden	Big Bear Resort	MO3192145	June July August
Camden	Dewey's Lounge	MO3258194	March November December
Camden	Fish and Company	MO3212312	April May June July August September October

**Monitoring Violations
Chronic**

COUNTY	SUPPLY NAME	ID#	Month
Camden	Granada Resort	MO3198113	May August September
Camden	Paradise Restaurant	MO3218004	July August September
Camden	Porter Mill Spring Fishing Res	MO3190778	April May June
Camden	Sunset Inn Resort	MO3190770	May June July August
Camden	Tucson's Southwest Grill	MO3211136	January February March May June
Crawford	Bird's Nest Lodge	MO6190795	April May July August
Crawford	Bowers & Cottrells	MO3211035	January February March April May June
Dallas	Suzy Q's Restaurant	MO5212089	February March April June
Douglas	Plummer's Junction Store	MO5211664	January February April July
Franklin	Hermit Hollow Subd	MO6036139	May June September
Greene	Express Lane #7	MO5258072	June August December

**Monitoring Violations
Chronic**

COUNTY	SUPPLY NAME	ID#	Month
Henry	Tightwad C- Store	MO1291291	January April June August
Hickory	Ponderosa Sub.	MO5036355	February April May June
Jefferson	D & J MHP	MO6048142	May July September
Jefferson	Engle Ridge Village	MO6030365	February March July August October November December
Jefferson	Green Acre MHP	MO6048012	March May June August October
Jefferson	Walker Hill MHP	MO6041184	February May September
Jefferson	White Oak Lanes	MO6211556	January April August October November
Lawrence	Crossroads Cafe	MO5211348	January February March September
Lincoln	Shenandoah Stables	MO6202342	June July August

**Monitoring Violations
Chronic**

COUNTY	SUPPLY NAME	ID#	Month
McDonald	Ginger Blue Retreat	MO5191560	February March April May June July August September
Miller	Golden Rule Resort	MO3198258	January February April September
Morgan	Gravois MHP	MO3041721	June October December
New Madrid	North Lilbourn	MO4010581	September October December
Newton	Four States Snack Bar	MO5281260	February May August
Newton	Racine Apostolic Church	MO5170238	January May June
Newton	Southgate Truck Plaza	MO5218064	February March September
Ozark	On the Run Pizza & Subs	MO5212330	April May June August September
Phelps	Whitson Scenic View MHP	MO3048132	January August September
Polk	Seitz Matteson Subd.	MO5036199	April May June July October

**Monitoring Violations
Chronic**

COUNTY	SUPPLY NAME	ID#	Month
Pulaski	Village Inn Motel	MO3048042	January August September
Pulaski	Wilderness Ridge Resort	MO3241624	May June July August
Saline	Countryside Palace	MO2211898	January February July
Scott	Haywood City	MO4010971	January February April May June August September October November December
St. Charles	Prairie View Acres Subd.	MO6036022	April September October
St. Louis	Wildhorse Amoco	MO6291618	January February August September December
Stone	Flat Creek Resort	MO5191681	April June July September December
Stone	Green Valley Resort	MO5190993	July August September
Stone	Holiday Acres Subd.	MO5031219	January March April

**Monitoring Violations
Chronic**

COUNTY	SUPPLY NAME	ID#	Month
Stone	McCord Bend Subd.	MO5036205	February October November
Stone	Pizza Chef South	MO5258136	March May June July
Stone	Starlight Village	MO5030473	August November December
Stone	Starlight Village 2nd Addition	MO5031204	January February March
Taney	160 Cafe	MO5211163	January February July September
Tane	Five Seasons MHP	MO5041214	January February March April May June
Taney	Persimmon Ridge Homeowner's As	MO5036275	January June November
Taney	Spring Creek 2nd Addition	MO5030391	October November December
Warren	Prairie Meadows	MO6031216	May October December

APPENDIX C

Major Repeat Monitoring Violations

The following systems had major repeat monitoring violations for the months listed. A major repeat monitoring violation occurs when a routine sample tests positive for total coliform bacteria and a system then fails to submit any follow-up, or repeat, samples as required.

County	SUPPLY NAME	ID#	Month(s)
BARRY	AYER'S CORNER SHOPPING CENTER	MO5291423	July
BARRY	KINGS HARBOR RESORT	MO5211301	July
BARRY	RAYMOND'S MEXICAN FOOD	MO5211229	September
BENTON	CAMP OAKLEDGE	MO3242005	April
BENTON	LAKE HILLS MH/RV PARK	MO3040761	September
BENTON	THE STORE AT EDWARDS	MO3290553	June
BOONE	GYGR MOBILE HOME PARK	MO3048251	June
CALLAWAY	TOWER MHP	MO3048261	July
CAMDEN	11 WEST CONDOMINIUM	MO3238020	September
CAMDEN	5-81 MOTEL & CAMPGROUND	MO3190771	December
CAMDEN	BAYOU BILLS BAR & GRILL	MO3218205	May
CAMDEN	BIG BEAR RESORT	MO3192145	July August
CAMDEN	BURGER'S SMOKE HOUSE	MO3211095	May
CAMDEN	BURTON DUENKE TRUST	MO3258107	October
CAMDEN	CAMELOT UTILITIES CO	MO3036183	November
CAMDEN	CLEARWATER RESORT	MO3191518	August October
CAMDEN	COZY CONEY CAFE	MO3211043	May
CAMDEN	D & J'S DUSTY PATH	MO3218012	November

**Major Repeat
Monitoring Violations**

County	SUPPLY NAME	ID#	Month(s)
CAMDEN	DONNA'S DINER	MO3210248	June
CAMDEN	FACTORY OUTLET VILLAGE	MO3258182	July October
CAMDEN	FOXHEAD SHORES	MO3036078	November
CAMDEN	GLAIZE BRIDGE SHOPPING CENTER	MO3258200	October
CAMDEN	HARWOODS RESORT	MO3198207	May July
CAMDEN	J BRUNER'S RESTAURANT	MO3218010	July
CAMDEN	KAYS RESTAURANT	MO3211099	June
CAMDEN	LINN CREEK	MO3010471	July
CAMDEN	LINN CREEK CMPGRD & BOAT DOCKS	MO3248177	June July
CAMDEN	LUCKY DUCK CAFE	MO3218226	October
CAMDEN	MALLARD POINT RESORT INC	MO3192143	June
CAMDEN	MITCH & DUFF'S RESTAURANT	MO3218237	September
CAMDEN	POVERTY FLATS VILLAGE	MO3258106	September
CAMDEN	ROBINS RESORT	MO3190722	June September
CAMDEN	ROCKWAY MOTOR COURT	MO3190785	June
CAMDEN	RUNAWAY II	MO3231654	July
CAMDEN	SPORTSMAN'S COVE RESORT	MO3191522	May
CAMDEN	ST MORITZ ESTATES CONDO	MO3238024	June
CAMDEN	SWISS VILLAGE CONDO	MO3238050	April
CAMDEN	THE BREAKERS CONDOMINIUM	MO3238250	June
CAMDEN	THE RAIL SPORTS BAR	MO3258105	June

**Major Repeat
Monitoring Violations**

County	SUPPLY NAME	ID#	Month(s)
CAMDEN	THE SALTY DOG	MO3190729	December
CAMDEN	VISTA GRANDE	MO3218109	December
CAMDEN	WAL-MART	MO3281405	June
CAMDEN	Y-ROAD GENERAL STORE	MO3258017	May
COLE	LAKE CARMEL	MO3031183	May
FRANKLIN	CRESTVIEW ACRES SUBD	MO6036074	September
FRANKLIN	HILLSIDE ACRES SUBD	MO6036135	June July
FRANKLIN	LAKESIDE WATER CO	MO6031163	October
FRANKLIN	MERAMEC STATE PARK	MO6120162	July
GASCONADE	MORRISON	MO6010544	August
GREENE	OZARK TRAVEL STOP	MO5212062	August
HENRY	SKY VILLAGE	MO1031166	April
HOWELL	VALLEY PARK MHP	MO4041188	April
IRON	PILOT KNOB RURAL WATER DIST #1 S	MO4020602	April
JASPER	QUAKERMILL PARK AND GROCERY	MO5258132	September
JEFFERSON	ENGLE RIDGE VILLAGE SUBDIVISION	MO6030365	December
JEFFERSON	GOLDEN ACRES MOBILE HOME COURT	MO6048060	September
JEFFERSON	LAKE CATTAILS SUBD	MO6036161	March
JEFFERSON	LAUREL ACRES MHP	MO6048147	September
JEFFERSON	PACIFIC HEIGHTS SUBD	MO6036316	October
JEFFERSON	PINE FORD VILLAGE MHP	MO6048354	November
JEFFERSON	SUMMERSET SUBD	MO6036031	August

**Major Repeat
Monitoring Violations**

County	SUPPLY NAME	ID#	Month(s)
JEFFERSON	SUNNYHILL CENTER	MO6171881	July August
JEFFERSON	SUNRISE LAKES SUBD	MO6036080	January
JEFFERSON	VALLEY VIEW APTS	MO6036213	September
JEFFERSON	WARE LAKE SUBD	MO6036148	January July August
JEFFERSON	WARREN WOODS SUBD	MO6036084	February
JOHNSON	BARLOW'S TRAILER COURT	MO1041099	July
JOHNSON	COUNTRY ACRES SUBD	MO1036167	November
LAWRENCE	MILLER	MO5010525	September
LINCOLN	CEDAR RIDGE ESTATES	MO6041076	November
LINCOLN	SHENANDOAH STABLES	MO6202342	October
MARIES	ROLLA NATIONAL AIRPORT	MO3221427	September
MILLER	OZARK RESORT & CONF CENTER	MO3190805	October
MISSISSIPPI	BERTRAND	MO4010067	May November
MONITEAU	CLARKSBURG	MO3010166	May November
MONITEAU	JAMESTOWN	MO3010407	August
MONTGOMERY	STEAMBOAT JUNCTION	MO3242073	August
MORGAN	FOREST HILLS SUBD	MO3036159	October
NEW MADRID	NORTH LILBOURN	MO4010581	September
NEWTON	MC DONALDS #8201	MO5212102	May
OREGON	USFS-MC CORMACK LAKE PICNIC GROUND	MO4101841	July

**Major Repeat
Monitoring Violations**

County	SUPPLY NAME	ID#	Month(s)
PETTIS	MEADOWLARK ACRES MHP	MO3048289	September
PHELPS	NEWBURG	MO3010887	June
PHELPS	TANGLEWOOD MOBILE COURT	MO3048124	October
PLATTE	BASSWOOD COUNTRY INN RESORT	MO1191079	April
POLK	SOUTHERN STAR SALOON	MO5281420	May
PULASKI	HIGH POINT ESTATES	MO3036122	June
SALINE	COUNTRYSIDE PALACE	MO2211898	September
SCOTT	HAYWOOD CITY	MO4010971	July
SHANNON	JASON PLACE CAMPGROUND	MO4248525	July
ST CHARLES	CHEROKEE LAKES CAMP	MO6240106	July
ST CHARLES	PRAIRIE VIEW ACRES SUBD	MO6036022	May
ST LOUIS	AL-PAC HOMELESS SHELTER	MO6061132	May
STONE	BLACK OAK MOUNTAIN RESORT	MO5036267	July
STONE	REEDS SPRING	MO5010679	April
STONE	TRAILS END RESORT & RV P ARK	MO5191959	May
STONE	WOOD RIDGE ESTATES	MO5036071	August
STONE	WOODLAND MANOR	MO5036111	June
TANEY	BRANSON HIGHLANDS	MO5030690	February
TANEY	BULL CREEK VILLAGE	MO5048161	June
TANEY	FIVE SEASONS MHP	MO5041214	October

**Major Repeat
Monitoring Violations**

County	SUPPLY NAME	ID#	Month(s)
TANEY	OZARK PARK ESTATES	MO5048271	May
TEXAS	ROCK BOTTOM CLUB	MO4218564	April
WARREN	MAPLE RIDGE MHP	MO6048138	May
WASHINGTON	BELGRADE ELEM SCHOOL	MO6171240	September
WRIGHT	MO PARK CAMPGROUND	MO5048174	September